



CNRS

**Basic research for the benefit
of the society**

1939, DATE OF CREATION...



Jean Zay

- 40 laboratories
- 1000 permanent staff

- Physics and Chemistry, Meudon and Paris
- Biology, then Genetics, Gif sur Yvette
- Human and Social Sciences, Paris
- Physics and Magnetism, Meudon

Jean Perrin



KEY FIGURES

RESSOURCES

32 000
Employees

28 000
Scientists (researches, ing., tech.)

BUDGET

4,0
Billions of euros in 2023

1,0
Millions of euros of own resources

RESEARCH

+1 000
Laboratories in France

10
Scientific divisions

INNOVATION

+240
Joint research structures
CNRS / companies

80 to 100
Start-up created
per year

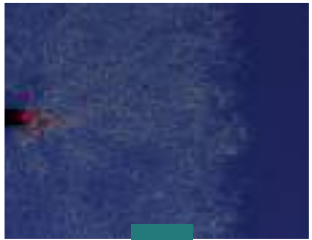
1st
Patent filers in co-deposit with
companies (INPI)

PUBLICATIONS

2/3
of publications are with a
foreign laboratory

94 %
publications
are in open access

10 SCIENTIFIC DIVISIONS



**Mathematical sciences
& their interactions**



**Information
Sciences &
Technologies**



**Engineering
& Systems
Sciences**



Chemistry



Physics



**Nuclear & Particles
Physics**



**Earth Sciences and
Astronomy**



**Ecology
& Environment**



**Biological
Sciences**



**Humanities &
Social Sciences**

10 RECENT SCIENTIFIC ADVANCES

2012

HIGGS BOSON

After 40 years of tracking, discovery of the Higgs boson at the Large Hardron Collider / CERN



2013

3D PRINTING OF TISSUES AND ORGANS

Creation of the world's first hydroxyapatite cranial implant from the patient's scanner file at the University Hospital of Limoges



2013

PANDORAVIRUS

Discovery of a missing link between the viral world and the cellular world



2015

TARA EXPEDITION

Discoveries of unknown branches of life in the ocean



2016

GRAVITATIONAL WAVES

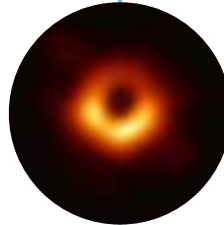
Confirmation of the existence of gravitational waves thanks to the contribution of physicists



2019

BLACK HOLES

Astronomers succeed in obtaining the first image of a black hole



2020

NOTRE-DAME

After the fire, the Notre-Dame project was launched, bringing together researchers from all scientific disciplines in the form of 8 working groups



2020

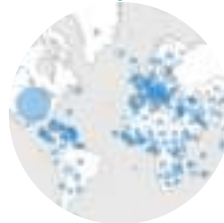


THE JEAN ZAY SUPERCOMPUTER

One of the most powerful supercomputers in Europe and an accelerator for AI research in all disciplines

MODCOV19

New MODCOV19 platform to coordinate expertise in Covid-19 and epidemic modeling



2021



MARS PERSEVERANCE ROVER

Landing on the Martian soil with SuperCam, a scientific instrument "made in France"



BASIC RESEARCH

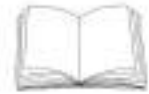
FOR THE BENEFIT OF THE SOCIETY

BASIC RESEARCH...



- To recruit and form **talents**

COP



- To progress in the **study of our some 40 thematic priorities**



- To promote **open science**

- To preserve **scientific integrity and deontology**



- To support **research infrastructures**

INTERNATIONAL OUTREACH

Present in **38 countries**

Member of **88 very large research international infrastructures**

25 PhD joint programmes (130 PhD grants)

110 Internat. research **projects**
210 Internat. research **networks**

80 International research labs with international academic partners

A **European** influence strategy (G6, Science Business)

First beneficiary of the Horizon 2020 framework program

50% of French ERC grants are awarded to CNRS researchers

A long-term plan for **Africa**

INTERNATIONAL RESEARCH LABORATORIES & CNRS OFFICES ABROAD



10
representation
offices

More than 70 IRL
4 with a company



CNRS-CHILE COPUBLICATIONS (PERIOD 2019-2022)

During 2019 – 2022, **CNRS** laboratories co-published with :

European Southern Observatory	710 articles
Pontificia Universidad Catolica de Chile	694 articles
Universidad de Chile	596 articles
U. Tecnica Federico Santa Maria	416 articles
Universidad de Concepcion	262 articles
...	...

... which makes of **PUC Chile, U. Chile and U. Concepcion** our **top academic partners** in Chile.

DISCIPLINES SAMPLING AMONG THE 250 SUB-THEMES (WEB OF SCIENCE FIELDS) OF **CNRS-CHILE** CO-PUBLICATIONS (2019-2022)

Discipline	Articles
Astronomy & Astrophysics	1251
Physics, Particles & Fields	294
Environmental Sciences	119
Geosciences	117
Ecology	98
Physics, Nuclear	84
...	...

CNRS-ARGENTINA COPUBLICATIONS (PERIOD 2019-2022)

During 2019 – 2022, **CNRS** laboratories co-published with :

CONICET	1437 articles
University of Buenos Aires	762 articles
National University of La Plata	516 articles
National University of Cordoba	146 articles
Comision Nacional de Energia Atomica	143 articles
...	...

... which makes of **CONICET, UBA and CNEA** our **top academic partners** in Argentina.

DISCIPLINES SAMPLING AMONG THE 250 SUB-THEMES (WEB OF SCIENCE FIELDS) OF **CNRS-CHILE** CO-PUBLICATIONS (2019-2022)

Discipline	Articles
Physics, Particles & Fields	295
Astronomy & Astrophysics	289
Ecology	118
Environmental Sciences	89
Physics, Multidisciplinary	69
...	...

CNRS-BRAZIL COPUBLICATIONS (PERIOD 2017-2022)

During 2017 – 2022, **CNRS** laboratories co-published with :

Universidade de Sao Paulo	2 995 articles
Universidade Federal de Rio de Janeiro	1 493 articles
Universidade Estadual de Campinas	1 455 articles
Centro Brasileiro de Pesquisa Fisica	1 256 articles
Universidade Estadual Paulista	1 031 articles
...	...

... which makes of **Universidade de Sao Paulo** our **first academic partner** in Brazil.

CNRS TOOLS AIMED AT INTERNATIONAL COLLABORATION

Exploring

International Emerging Actions (IEA)

2-year **PI-to-PI** research projects

Building a capacity to develop strategic orientations

Consolidating

International Research Networks (IRN)

5-year **multi-team scientific coordination networks**

Strengthening a collaboration
Simplifying international agreement processes

International Research Projects (IRP)

5-year **labs-to-labs collaborative research projects**

Bottom-up approach

Structuring

International Research Laboratories (IRL)

5-year **joint research laboratories**

Highlighting iconic operations decided at a strategic level and implementing a strongly localized international presence

Laboratory approach

Integrating

International Research Centres (IRC)

PhD joint programmes

Joint institutional steering

Institutional approach

3 CNRS INTERNATIONAL LABORATORIES @ CHILE

2000 - ...

Mathematical Sciences
Center for Mathematical Modelling
International Research Laboratory
Institute of Mathematics CNRS/CMM



2012 - ...

Earth Sciences and Astronomy
Laboratoire Franco-Chilien d'Astronomie
International Research Laboratory
CNRS/PUC Chile/U. Chile/U. Concepcion



2014 - ...

Ecological and Environment Sciences
Evolutionary Biology and Exology of Algae
International Research Laboratory
CNRS/Pierre et Marie Curie U./PUC Chile/UACH



CNRS INTERNATIONAL LABORATORIES AND PROJECTS @ ARGENTINA

2010 - ...

Earth Sciences and Astronomy

Instituto Franco-Argentino Estudios del Clima
y sus Impactos
International Research Laboratory
INSU CNRS/IRD/CONICET/UBA



2021 - 2025

Chemical Sciences

Catalysts for Olefin Production
International Research Project
IC2MP Poitiers/CONICET/Universidad Nacional del Litoral



2021 - 2025

Physical Sciences

Statistical Physics of Materials
International Research Project
LIP CNRS/Centro Atomico Bariloche



CNRS INTERNATIONAL COLLABORATIONS @ RIO DE JANEIRO

2006 - ...

Mathematical Sciences

Jean-Christophe Yoccoz *International Laboratory*
CNRS/IMPA



2020 - 2024

Ecology and Environment Sciences

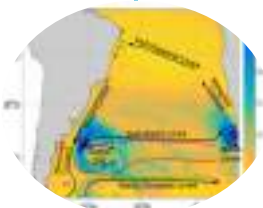
Tropical coastal ecosystems facing the eutrophication
International Project
LBEOA Paris/ Univ. Estadual de Rio de Janeiro



2023 - 2027

Earth Sciences and Astronomy

Drivers of past changes in South Atlantic Circulation
International Project
LOCEAN Paris/USP



A night sky with the Milky Way galaxy, a silhouette of a person on a telescope structure, and a telescope dome.

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